Proposal Reviews

#219: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

University of California, San Diego, Scripps Institute of Oceanography

Initial Selection Panel Review	
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Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Initial Selection Panel Review

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Please provide an overall evaluation rating.

Explanation of Recommendation Categories: Fund

- **As Is** (a proposal recommended for funding as proposed)
- **In Part** (a proposal for which partial funding is recommended for selected project phases or components)
- **With Conditions** (a proposal for which funds are recommended if the applicant contractually agrees to meet the specified conditions)

Consider as Directed Action in Annual Workplan (a proposal addressing a high priority action that requires some revision followed by additional review prior to being recommended for funding)
Not Recommended (a proposal not currently recommended for funding-after revision may be considered in the future)

Note on "Amount":

For proposals recommended as Fund As Is, Fund In Part or Fund With Conditions, the dollar amount is the amount recommended by the Selection Panel.

For proposals recommended as Consider as Directed Action in Annual Workplan, the dollar amount is the amount requested by the applicant(s).

Fund	
As Is	**-**
In Part	**-**
With Conditions	**-**
Consider as Directed Action	**-**
Not Recommended	**X**

Amount: **$0**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None

Provide a brief explanation of your rating:

The technical review panel identified that the proposed project will duplicate much existing work in the region, will not result in much new knowledge, and is not clearly linked with restoration efforts. The project is similar to other, more innovative climate change proposals received in response to the 2002 PSP. The Selection Panel does not recommend funding this proposal.

Research and Restoration Technical Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Research and Restoration Technical Panel Review Form

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;
Above Average: Quality proposal, medium or high regional value, and no significant administrative concerns;
Adequate: No serious deficiencies, no significant regional impediments, and no significant administrative concerns;
Not Recommended: Serious deficiencies, significant regional impediments or significant administrative concerns.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	**The panel agreed that there is an important need to develop an integrative climate-hydrology-estuary model that can be used by water management agencies to plan for the effects of climate variability and change on California's water resources. However, such models will only be useful if they are developed in collaboration with water management agencies to ensure that the tools that are developed can and will be used for long-term planning. This aspect of the work needs to be more fully developed in a future submission. Performance measures should not relate so much to model accuracy--the success of this project should hinge on the extent to which water management agencies use the integrative modeling system that the project will develop.** **As the proposal is written, the project will only provide knowledge on climate change impacts. Much of this knowledge already exists, and is currently being refined in ongoing efforts at University of Washington, Lawrence Livermore, and SCRIPPS. This proposal would be more worthwhile if it took an extra step, and instead of focusing on providing new knowledge, focuses on developing modeling tools that can be used by decison-makers in the region.**
-Above average	
XAdequate	
-Not recommended	

1. **Goals and Justification.** Does the proposal present a clear statement of goals, objectives and hypotheses? Does the proposal present a clear justification and conceptual model for the project?

The goals are well stated, but the concept is not very well justified in that it will duplicate much existing work in the region.For the concept to be useful, the PIs need to develop collaborative partnerships with water management agencies and develop an integrative modeling system that water managers can use for planning purposes.

2. **Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).** Is the project likely to succeed based on the approach, feasibility and project team capabilities? Are the proposed performance measures adequate for measuring the project's success?

   The PIs will be successful in meeting their objectives. This is a very capable team.

3. **Outcomes and Products.** Will the project advance the state of scientific knowledge in general and/or make an important contribution to the state of knowledge of the Bay-Delta Watershed? For restoration proposals, is the project likely to contribute to ecosystem restoration or species recoveries in a significant way? Will the project produce products useful to decision-makers and scientists?

   This project will probably not result in much new knowledge. Similar projects have been done by other investigators.

4. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The budget is reasonable to complete the work proposed, but may not be justified becuase of the expected small gains in new knowledge.

5. **Regional Review.** How did the regional panel(s) rank the proposal (High, Medium, Low)? Did the regional panel(s) identify significant benefits (regional priorities, linkages with other activities, local involvement) or impediments (local constraints, conflicts with other activities, lack of local involvement) to this proposal? What were they?

   The proposal recieved "Low" ratings from the Sacramento, Delta, and Bay panels, and a "Medium rating from the San Joajuin panel. Comments were similar to both external reviewers: "Considerable research is already being conducted on this topic" (Sacramento), "Needs better linkage to restoration planning and to other climate change projects" (San Joaquin), "Part of this project should consider how their work should be incorporated into restoration planning. Do not just leave this step up to CalFed or restoration practicioners..." (San Joaquin), "The utility of this project to impending decisions isn't clear" (Delta), "The project proponents need to have further discussions with those program managers who will be expected to utilize results from this tool" (Delta).

6. **Administrative Review.** Were there significant concerns about the proposal with regard to the prior performance, environmental compliance and budget administrative reviews? What were they?

   Budget - project management costs not disclosed. Proposal overhead 52% - should be 10%.

Miscellaneous comments:

None.

Bay Regional Review:

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Overall Ranking: **X**Low **-**Medium **-**High

Provide a brief summary explanation of the committee's ranking:

Team did not see a clear linkage to the Bay region and was concerned about the difficulty in scaling very large scale models to provide specific information to the Bay region, particularly in relation to the other climate proposals based on studying past climate records

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   No local actions need to be taken and team did not analyze the feasibility of the proposed modeling.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   Climate information is important to management actions ((MR-4).

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   XYes **-**No

   How?

   Basic science that would inform regional efforts.

4. Does the project adequately involve local people and institutions?

   XYes **-**No

   How?

See above

Other Comments:

See main comments above.

Delta Regional Review:

Proposal Number: 219

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Overall Ranking: **X**Low **-**Medium **-**High

Provide a brief summary explanation of the committee's ranking:

The utility of this project to impending decisions isn't clear. Better coordination with other Delta activities is needed.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   It does utilize existing hardware and software.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   The product should provide a mechanism that leads to a better understanding of climate variability and its affect on water management. However, the scale usefulness of the product in helping to reach CALFED objectives, given the uncertainty associated with climate change models are not clear.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   -Yes **X**No

   How?

   The project proponents need to have further discussions with those program managers who will be expected to utilize the results from this tool. Some of the items to discuss would include model assumptions, sensitivity to crucial parameters and appropriate model output to meet their program needs.

4. Does the project adequately involve local people and institutions?

   -Yes **X**No

How?

Current models developed for the Delta are not necessarily incorporated into the proposal. There needs to be more discussion with personnel who have done associated types of modeling especially in the Bay Delta. There needs to be more discussion with potential users of the model product.

Other Comments:

This needs to be coordinated with Adaptive Management of Climate Change Impacts on Water Quality and Environmental Resources of the San Joaquin River and its Major Tributaries.

Utilize some component of the IEP Modeling Forum to review climate model proposals?

San Joaquin Regional Review:

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Overall Ranking: **-**Low **X**Medium **-**High

Provide a brief summary explanation of the committee's ranking:

Specific regional application not strong. Needs better linkage to restoration planning and to other climate change projects.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   This basic research that will not be affected by any local constraints

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   indirectly. Better case could have been made. The climate context and the implications of climate change are important to the planning and design of restoration projects

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   -Yes **X**No

   How?

   Will work on GCM model down-scaling proposed by UCB on San Joaquin Basin overlap?

   Part of this project should consider how their work should be incorporated into restoration planning. Do not just leave this step up to CalFed or restoration practioners since they may not fully understand the results or the implications of the results.

   Should state how this work will be better and more relevant that other watershed models in the Bay-Delta that have been developed and are looking at the impact of climate change (e.g UC Davis Lev Kavas effort)

4. Does the project adequately involve local people and institutions?

-Yes **X**No

How?

Not relevant

Other Comments:

Relevant research that should be cost-shared by other interested parties. CalFed should not be only contributor. Other interested agencies should be MWD, State Water Project Contractors, DWR, USBR, USACOE (separate from their CalFed interest) and other water supply and flood management agencies.

CalFed has initiated a white paper that would hopefully focus climate change work and how that should be used in restoration planning. Perhaps this kind of research should wait for that

How is the model calibrated?

Different flood management land use scenarios could also be evaluated.

Sacramento Regional Review:

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

Overall Ranking: **X**Low **-**Medium **-**High

Provide a brief summary explanation of the committee's ranking:

Considerable research has been and is already being conducted on this topic. There are other data sources available.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   The project would use existing data.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   The proposal addresses PSP Multi-region priority #4.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   -Yes **X**No

   How?

   The proposal is not really linked to any ongoing restoration activities in the region.

4. Does the project adequately involve local people and institutions?

   -Yes **X**No

   How?

   There is no mention of local involvement in the proposal.

Other Comments:

A project with a 100-year horizon might be a better fit as part of a future proposal solicitation.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **219**

Applicant Organization: **University of California, San Diego, Scripps Institute of Oceanography**

Proposal Title: **Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

None

Review:

Please provide an overall evaluation summary rating:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**This is a good project proposed by a capable team. It's not very innovative, and it is difficult to see how it will provide new knowledge.**
XGood	
-Poor	

1. **<u>Goals.</u>** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   The goals of this project are clearly stated. This is a well written proposal. However, the concept seems to be about 10 years out of date. Many different investigators have assessed the impacts of future climate projections on snowpack and streamflow, and many different investigators have assessed the capability of water mangement systems to effectively deal with these changes.

   I guess the innovative aspect of this proposal is that it combines the impacts of climate change and human responses into a single modeling framework that will allow water management agencies to play a series of "what if" games. While the amount of new knowledge generated may be small, the resultant integrative modeling tool may be extremely

useful to decision makers.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

   I do not think this proposal will result in remarkable advances in science. The product of this project is an integrated assessment model. The development of this modeling framework may be useful to decision-makers and justify funding the project, but it does not appear that the PIs have talked to water management agencies about their need for such models.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   The approach is fairly well designed, and is appropriate for meeting the project objectives. My concern lies in the plan for dealing with uncertainties in the projections of future climate. The PIs plan to examine more than one GCM appears almost as an after-thought. They do not provide a list of the other GCMs they plan to use, or any information on whether or not they have access to the GCM output. For this proposal to be successful, the PIs need to examine multiple ensemble runs from multiple GCMs. A clear plan for achieving this is necessary for me to have confidence in this proposal. I'd also have more confidence in the proposal if the PIs provided a plan for accounting for uncertainty in the statistical downscaling methodology.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   As the proposal is written, the project is feasible and likely to succeed. However, I do not see the end result in providing much new knowledge.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   Performance is measured in terms of model accuracy and the number and quality of peer-reviewed articles. This is appropriate for a research project (which is how the PIs view their proposal). I'd like the PIs to take this project a step further, and develop a modeling system that can be used by decision-makers. This requires additional funds for outreach and technology transfer, but is the only way I can see this project is justified.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   I don't think this project will result in much new knowledge --the modeling system may be useful, but more involvement with water management agencies is necessary for the modeling benefits to be realized.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   The PIs are certainly capable of successfully implementing this project. Dan Cayan and Alexander Gershunov are top-notch scientists. I don't know the PI, but he/she seems to have done some good work.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The budget is reasonable for what is proposed.

Miscellaneous comments:

None.

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **219**

Applicant Organization: **University of California, San Diego, Scripps Institute of Oceanography**

Proposal Title: **Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

<u>Excellent:</u> outstanding in all respects;
<u>Good:</u> quality but some deficiencies;
<u>Poor:</u> serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
XExcellent	**Forecasting global climate change and subsequent hydrological and ecological responses and consequences is an emerging, frontier area of environmental research. California's Sacamento and San Joaquin Rivers and the entire SF-Bay Estuary's drainage basin appears to be extremely sensitive to even subtle changes in climate. The authors are in an excellent position to contribute to our understanding of the hydrological responses to such change and may provide regional and state planners with powerful long-term forecasts of water availability. Long-term forecasts are common in economics and vital to fiscal planning, but long-term forecasts are rare in the environmental sciences. There is a critical need to incorporate environmental forecasts into management and political plans. The proposed work by Knowles, Cayan, and Gershunov is timely and important.**
-Good	
-Poor	

1. **<u>Goals.</u>** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The goals are clearly stated, and more importantly discussed in a thoughtful and detailed manner. The authors plan to assess: 1) predicted long term changes in the precipitation, temperature, and humidity and response of snow-pack and stream flow in the nothern SF-Bay drainage basin, 2) predicted changes in salinity, 3) predicted changes in interannual variability of regional weather patterns, and 4) role of specific land-use changes or water-management on the prior hydrologic predictions. These goals are ambitious, but of critical importance to the northern SF-Bay and entire state of CA.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

   The authors are authorities in the forecasting of regional climate change and subsequent hydrologic responses, and the proposed work builds upon their previous work and that of colleagues. The concetual model is clearly stated and is presented as a series of pre-existing models that represent a range of scales spanning from global to small catchment. The authors strive to link these previously independent models and provide a framework for predicting (and eventually detecting and quantifying) the role predicted climate change on the hydrology (both physical and chemical hydrology) of the northern SF-Bay.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   The appoach is presented in a logical, non-technical manner and supported with detailed links and references. Results will certainly add to the base of our knowlege because such hydrological forecasts are an emerging, frontier area in the environmental sciences. In this regard, the information gererated, methods, and approaches will almost certainly be novel, and gererate healthy debate. Critical information will be provided for decision makers. This information will need to be refined as improvements in hydrologic forecasting emerge.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   The authors track records indicate a high probability of success, however long-term predictions that require accurate input from several emerging models are inherently difficult. For this reason, the authors may want to consider removing objectives #2 and #4 from the proposed body of work if additional uncertainties in land-use or management practices needlessly complicate first order regional and catchment climate-change questions.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   The proposal is somewhat weak in this regard. Many of the performance measures will be attached directly to the success of model construction, but model validation will take many years. The project may be of limited use to immediate and even decadal restoration plans, but may prove to very important to long term planning and forecasting.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   The products that emerge from this proposal may not be as tractable as thosefrom proposals with shorter response times. The CALFED Science Program needs to consider ecosystem responses at a wide range of time scales, and in this regard the work proposed may establish critical foundation work for improving hydrologic forecasting for the Delta.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   OUTSTANDING qualifications.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   seems reasonable considering the large fraction dedicated to salaries

Miscellaneous comments:

I did not formally review proposal #218, but I did peruse it to compare with the proposal at hand (#219). The authors, models, and objectives appear to overlap. I think the CALFED Science Program Review Panel will need to discuss and evaluate both proposals together.

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **219**

Applicant Organization: **University of California, San Diego, Scripps Institute of Oceanography**

Proposal Title: **Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

Dan Cayan is affiliated with the USGS.

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	**Provide a brief explanation of your summary rating**
-Excellent	**I think the proposed work is good, but not as novel as the companion proposal.**
XGood	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   The goals and objectives are clearly stated and internally consistent. The aim of the study is to examine the impact and uncertainties of future potential climate change on the Bay-Delta estuary and watershed.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

The study is justified in terms of a conceptual model being clearly stated and forming the basis for the proposed work. I am uncertain if the work is justified in the context of previous work. I don't know the answer, but I wonder if similar work has already been done by Peter Gleick or, more recently, by Norman Miller. If related work previously has been completed, the additional understanding gained in the proposed study may not be sufficient to warrant funding the proposal.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   The approach is well designed and appropriate for meeting the objectives of the project. I am uncertain if the results will provide novel information. (I am wondering if similar work already has been done.)

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   The approach is feasible and sufficiently documented.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   Appropriate performance measures are given: model evaluation and publications.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   The model and papers will be useful.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   The applicants have a good track record.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   The budget seems reasonable.

Miscellaneous comments:

Environmental Compliance:

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

1. Are the legal or regulatory issues that affect the proposal identified adequately in the proposal?

   XYes **-**No

   If no, please explain:

2. Does the project's timeline and budget reflect adequate planning to address legal and regulatory issues that affect the proposal?

   XYes **-**No

   If no, please explain:

3. Do the legal and regulatory issues that affect the proposal significantly impair the project's feasibility?

   -Yes **X**No

   If yes, please explain:

Other Comments:

Budget:

Proposal Number: 219

Applicant Organization: University of California, San Diego, Scripps Institute of Oceanography

Proposal Title: Impacts of Global Climate Change on San Francisco Bay-Delta Estuary and Watershed

1. Does the proposal include a detailed budget for each year of requested support?

   XYes **-**No

   If no, please explain:

2. Does the proposal include a detailed budget for each task identified?

   XYes **-**No

   If no, please explain:

3. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs?

   XYes **-**No

   If no, please explain:

4. Are appropriate project management costs clearly identified?

   -Yes **X**No

   If no, please explain:

   Nothing Disclosed!

5. Do the total funds requested (Form I, Question 17A) equal the combined total annual costs in the budget summary?

   XYes **-**No

   If no, please explain (for example, are costs to be reimbursed by cost share funds included in the budget summary).

6. Does the budget justification adequately explain major expenses?

   XYes **-**No

If no, please explain:

7. Are there other budget issues that warrant consideration?

XYes **-**No

If yes, please explain:

Proposed overhead rate 52%, should be approximately 10%.

Other Comments: